

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 261, 264, 265, 268, and 270

[FRL-3981-7]

RIN 2050-AC32

Hazardous Waste Management System; Testing and Monitoring Activities

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

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**SUMMARY:** The Environmental Protection Agency (EPA or Agency) is amending its hazardous waste regulations under subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, for testing and monitoring activities. These amendments replace the current Second Edition, including Updates I and II, of the EPA approved test methods manual "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, by incorporating by reference the Third Edition (and its first update) into the RCRA regulations. These amendments also revise Appendices II-Method 1311 Toxicity Characteristic Leaching Procedure (TCLP) and III-Chemical Analysis Test Methods to 40 CFR part 261, delete Appendix X-Method of Analysis for Chlorinated Dibenzo-p-dioxins and Dibenzofurans, Method 8280, to 40 CFR part 261, and revise Appendices I-Toxicity Characteristic Leaching Procedure (TCLP) and IX-Extraction Procedure (EP) Toxicity Test, to 40 CFR part 268. This action is necessary to provide better and more complete analytical test methods for RCRA-related testing. The intent of this amendment is to provide up-to-date technologies in order to promote cost effectiveness and flexibility in choosing analytical test methods.

**EFFECTIVE DATE:** August 31, 1993. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 31, 1993.

**ADDRESSES:** The official record for this rulemaking (Docket No. F-93-WTMF-FFFFF) is located at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 (room M-2427), and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. The public must make an appointment to review docket

materials by calling (202) 260-9327. The public may copy a maximum of 100 pages of material from any one regulatory docket at no cost; additional copies cost \$0.15 per page.

Copies of the Third Edition of SW-846 and of Update I to the Third Edition are part of the official docket for this rulemaking, and also are available from the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402, (202) 783-3238. The GPO document number is 955-001-00000-1. New subscriptions to SW-846 may be ordered from GPO at a cost of \$319.00. Those persons who have copies of the Third Edition of SW-846 that were purchased from GPO and wish to receive the final version of Update I and future revisions can do so by renewing their subscriptions with GPO for \$221.00. There is a 25% surcharge for foreign subscriptions and renewals.

FOR FURTHER INFORMATION CONTACT: For general information contact the RCRA Hotline at (800) 424-9346 (toll free) or call (703) 920-9810; or, for hearing impaired, call TDD (800) 553-7672 or (703) 486-3323. For technical information, contact Kim Kirkland, Office of Solid Waste (OS-331), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, (202) 260-4761.

>>>> Preamble has not been included in this file. <<<<

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as set forth below:

PART 260-HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921-6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

Subpart B-Definitions

2. Section 260.11(a) is amended by revising the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" reference; by adding ASTM Method E926-88 to the end of the list of incorporation by reference publications; by removing the undesignated paragraph following the list of incorporation by reference publications, which refers to the 47 analytical testing methods and its footnote 1, to read as follows:

§ 260.11 References.

(a) \* \* \*

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 [Third Edition (September, 1986), as amended by Update I (July 1992)]. The Third Edition of SW-846 and Update I (document number 955-001-00000-1) are

available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 783-3238. Copies may be inspected at the Library and RCRA Docket No. F-93-WTMF-FFFFF, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

\* \* \* \* \*

"ASTM Standard Test Methods for Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals," ASTM Standard E926-88, Test Method C-Bomb, Acid Digestion Method, available from American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19103.

\* \* \* \* \*

#### Subpart C-Rulemaking Petitions

3. Section 260.22(d)(1)(i) is revised to read as follows:

§ 260.22 Petitions to amend part 261 to exclude a waste produced at a particular facility.

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \*

(i) Does not contain the constituent or constituents (as defined in Appendix VII of part 261 of this chapter) that caused the Administrator to list the waste, using the appropriate test methods prescribed in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11; or

\* \* \* \* \*

#### PART 261-IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

4. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

#### Subpart C-Characteristics of Hazardous Waste

5. Section 261.22 is amended by revising paragraphs (a)(1) and paragraph (a)(2) to read as follows:

§ 261.22 Characteristic of corrosivity.

(a) \* \* \*

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55EC (130EF) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

6. Section 261.24(a) is revised to read as follows:

§ 261.24 Toxicity characteristic.

(a) A solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

\* \* \* \* \*

7. Appendix II to part 261 is revised to read as follows:

Appendix II to Part 261-Method 1311 Toxicity Characteristic Leaching Procedure (TCLP)

Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

8. Appendix III to part 261 is revised to read as follows:

Appendix III to Part 261-Chemical Analysis Test Methods

Note: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in Chapter Two, "Choosing the Correct Procedure" found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

9. Appendix X to part 261 is removed.

PART 264-STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

10. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6925.

Subpart J-Tank Systems

11. Section 264.190 is amended by revising the last sentence of paragraph (a) to read as follows:

§ 264.190 Applicability.

\* \* \* \* \*

(a) \* \* \* To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

Subpart N-Landfills

12. Section 264.314 is amended by revising paragraph (c) to read as follows:

§ 264.314 Special requirements for bulk and containerized liquids.

\* \* \* \* \*

(c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

PART 265-INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF  
HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

13. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, 6925, 6935, and 6936.

Subpart J-Tank Systems

14. Section 265.190 is amended by revising the last sentence of paragraph (a) to read as follows:

§ 265.190 Applicability.

\* \* \* \* \*

(a) \* \* \* To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

Subpart N-Landfills

15. Section 265.314 is amended by revising paragraph (d) to read as follows:

§ 265.314 Special requirements for bulk and containerized liquids.

\* \* \* \* \*

(d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

PART 268-LAND DISPOSAL RESTRICTIONS

16. The authority citation for part 268 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

#### Subpart A-General

17. Section 268.7 is amended by revising paragraph (a) to read as follows:

#### § 268.7 Waste analysis and recordkeeping.

(a) Except as specified in § 268.32, if a generator's waste is listed in 40 CFR part 261, subpart D, the generator must test his waste, or test an extract using the Toxicity Characteristic Leaching Procedure, Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter, or use knowledge of the waste, to determine if the waste is restricted from land disposal under this part. Except as specified in § 268.32, if a generator's waste exhibits one or more of the characteristics set out at 40 CFR part 261, subpart C, the generator must test an extract using the Extraction Procedure Toxicity Test, Method 1310 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter, or use knowledge of the waste, to determine if the waste is restricted from land disposal under this part. If the generator determines that this waste displays the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by INCIN, FSUBS, or RORGS of § 268.42, Table 1), or the characteristic of corrosivity (D002), and is prohibited under § 268.37, the generator must determine what underlying hazardous constituents (as defined in § 268.2) are reasonably expected to be present in the D001 or D002 waste.

\* \* \* \* \*

#### Subpart D-Treatment Standards

18. Section 268.40 is amended by revising paragraph (a) to read as follows:

#### § 268.40 Applicability of treatment standards.

(a) A restricted waste identified in § 268.41 may be land disposed only if an extract of the waste or of the treatment residue of the waste developed using Method 1311, the Toxicity Characteristic Leaching Procedure does not exceed the value shown in Table CCWE of § 268.41 for any hazardous constituent listed in

Table CCWE for that waste, with the following exceptions: D004, D008, K031, K084, K101, K102, P010, P011, P012, P036, P038, and U136. These wastes may be land disposed only if an extract of the waste or of the treatment residue of the waste developed using either Method 1310, the Extraction Procedure Toxicity Test, or Method 1311, the Toxicity Characteristic Leaching Procedure, does not exceed the concentrations shown in Table CCWE of § 268.41 for any hazardous constituent listed in Table CCWE for that waste. Methods 1310 and 1311 are both found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

19. Section 268.41 is amended by revising paragraph (a) introductory text to read as follows:

§ 268.41 Treatment standards expressed as concentrations in waste extract.

(a) Table CCWE identifies the restricted wastes and the concentrations of their associated constituents which may not be exceeded in the extract of a waste or waste treatment residual extracted using Method 1311, the Toxicity Characteristic Leaching Procedure, for the allowable land disposal of such wastes. Compliance with these concentrations is required based upon grab samples. Method 1311 is found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

20. Appendix I to part 268 is revised to read as follows:

Appendix I to Part 268-Toxicity Characteristic Leaching Procedure (TCLP)

Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

21. Appendix IX to part 268 is revised to read as follows:

Appendix IX to Part 268-Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310)

Note: The EP (Method 1310) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

PART 270-EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

22. The authority citation for part 270 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

Subpart A-General Information

23. Section 270.6(a) is revised to read as follows:

§ 270.6 References.

(a) When used in part 270 of this chapter, the following publications are incorporated by reference: (See 40 CFR 260.11 References)

\* \* \* \* \*

Subpart B-Permit Application

24. Section 270.19 is amended by revising the last sentence of paragraph (c)(1)(iii), and by revising paragraph (c)(1)(iv) to read as follows:

§ 270.19 Specific part B information requirements for incinerators.

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(iii) \* \* \* The waste analysis must rely on analytical techniques specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or their equivalent.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter and § 270.6.

\* \* \* \* \*

Subpart F-Special Forms of Permits

25. Section 270.62 is amended by revising the last sentence of paragraph (b)(2)(i)(C), and by revising paragraph (b)(2)(i)(D) to read as follows:

§ 270.62 Hazardous waste incinerator permits.

\* \* \* \* \*

(b) \* \* \*

(2) \* \* \*

(i) \* \* \*

(C) \* \* \* The waste analysis must rely on analytical techniques specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or other equivalent.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or their equivalent.

\* \* \* \* \*

26. Section 270.66 is amended by revising the last sentence of paragraph (c)(2)(i), and by revising paragraph (c)(2)(ii) to read as follows:

§ 270.66 Permits for boilers and industrial furnaces burning hazardous waste.

\* \* \* \* \*

(c) \* \* \*

(2) \* \* \*

(i) \* \* \* The waste analysis must be conducted in accordance with analytical techniques specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or their equivalent.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by the analytical methods specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or other equivalent.

\* \* \* \* \*

[FR Doc. 93-21114 Filed 8-26-93; 8:45 am]  
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